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The Use of Credit on Selected Kentucky Farms.

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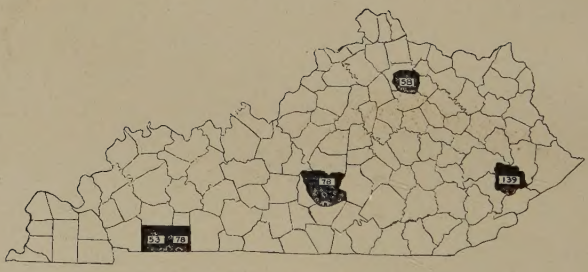

Figure 1. Location of areas in which the farms studied are situated.

BULLETIN NO. 343.

The Use of Credit on Selected Kentucky Farms.

By C. J. BRADLEY

PURPOSE AND PLAN OF THE STUDY

The purpose of this study is to analyze some of the factors affecting borrowing by farmers. Since the security offered is an important consideration in agricultural loans, special attention is given to the type of farming, the combination of enterprises, the operator, and other elements in farm organization and management.

Slightly over 400 large, owner-operated farms, located in four sections of the State and representing different types of farming, are included in the study. (See Figure 1 for location of these areas and the number of farms in each.) Data relating to the type of organization, the method of operation, and the manner of financing were obtained by personal interviews with farm operators. Surveys were made of the credit facilities in each area and additional information was obtained directly from the loaning agencies, also chiefly thru personal interviews.

This study was greatly facilitated by the staff of the Department of Farm Economics which assisted in the collection, tabulation and interpretation of the data. Special acknowledgment is due W. L. Rouse of that Department for his assistance and cooperation at all times during the progress of the study and Bruce Poundstone for help in obtaining records from farmers.

DESCRIPTION OF THE AREAS

Farming practices and methods within the four areas studied were assumed to be typical of major prevailing types of agriculture in Kentucky.

Christian-Todd. The westernmost area includes farms located in the southern portions of Christian and Todd counties. The prevailing topography of this section of the State favors the use of improved agricultural machinery. The natural drainage is good, rainfall is ordinarily abundant, the soil is residual from limestone, and timber, until lately, was plentiful and readily available. These favorable natural factors no doubt explain in large measure the early and sustained agricultural development of this area. Undoubtedly they were basic factors in producing an era of marked farm-land speculation in this section beginning about 1900. It was here that the plantation type of farm organization reached its greatest development in Kentucky and vestiges of that system yet remain. One hundred and thirty-one farms were studied in this area.

Bourbon. The Central Bluegrass region of Kentucky is represented by 58 farms located chiefly in the south-eastern part of Bourbon county. A few of these farms are across the county line in Clark and Montgomery counties. For convenience in tabulating, all farms were treated as tho they were in Bourbon county. The rolling topography of this region is well suited to the production of grasses and at the same time the land is readily and easily tillable. The residual soil from limestone has a high phosphorus content and the native fertility is high. The favorable natural factors, including an abundant rainfall, combine still further in making this an outstanding livestock-producing region. The growing of white burley tobacco is also very important and the fact that much of this product is grown by tenants greatly increases the number of farms and accordingly reduces the average size of all farms. From the viewpoint of ownership, farms in this region are generally quite large. Settlement of this area occurred very early and inheritance is probably more important in acquiring title of ownership to farm land here than in any other section of the State.

Taylor. The name of the county containing most of the farms studied is applied to this general area, altho several farms in Green and Adair counties were included. Seventy-eight farms were studied. These counties are situated in perhaps the

most isolated region of the State outside the mountains of Eastern Kentucky. The comparative isolation of this area together with other unfavorable natural factors combined to develop a highly self-sufficing type of agriculture with relatively small farms, mostly owner-operated. With the advent of good roads in recent years the former self-sufficiency of this region is rapidly giving way.

Inherent soil characteristics made this one of the least promising agricultural regions of Kentucky during the early settlement of the State. The general topography is hilly to broken, and without careful soil management erosion is marked. The soil is residual from sandstone, shale and limestone, is moderately acid, without treatment, and the native fertility is low. Natural drainage is often inadequate. Certain agricultural developments in recent years have tended to minimize markedly the effect of some of these natural adverse factors.

Knott. The mountain region of Kentucky is represented by 139 farms located in Knott county. The thirty-three mountain counties constitute the largest single agricultural district in the State, and contain approximately one-third of the farms and almost one-third of the total land area of the State. The average size and capital investment of farms in this district are small, with correspondingly low acre values.

The prevailing topography ranges from hilly, to broken, to mountainous. Much land, because of its unfavorable topography, is not included in farms, and careful soil husbandry is usually quite essential. This region was originally covered with hardwood timber but little of the virgin stand still remains. Very often hills too steep for profitable tillage have been cleared and allowed to erode badly. Reforestation and control of soil erosion are major problems confronting the agriculture of this region. The narrow stream valleys are generally quite fertile and most farms include some valley land. Practically all the tillable crops are grown in these valleys.

This (the Mountains) is the most isolated region of the State and a self-sufficing type of agricultural production has reached a high stage of development. Livestock production is not commercially important, altho much of the hill land would provide

excellent pasturage if properly seeded with well-chosen grasses. Within recent years a start has been made at growing white burley tobacco and with the present rapid construction of highways thruout this section increasing commercialization of agriculture is taking place.

CAPITAL REQUIREMENTS

The investment of the 406 farms included in this study amounted to $8,642,855 on January 1, 1929. The number of farms and investment in each county were as follows:

County	Number of Farms	Investment
Christian	53	$1,723,332
Todd	78	1,444,367
Bourbon	58	4,429,615
Taylor	78	580,472
Knott	139	465,069
Total	406	$8,642,855

The sample included only about 3.5 percent of the farms but the capital invested in these farms represented approximately 14 percent of the total farm wealth of these counties.

The large size of the farms and their high valuations are succinctly portrayed in the accompanying table. (See Table 1.) Proper evaluation of these data clearly indicates that any conclusions of this study as to the use of credit are applicable only to large farm owner-operators. These farmers undoubtedly occupy a strategic position for controlling their credit uses and practices in line with their own best interests, once the assembled body of farm credit information is adequate to indicate fundamental truths and underlying principles.

Approximately one-third, or 33.8 percent, of the farms contained less than 100 acres each, while almost two-fifths, or 38.4 percent, contained from 100 to 249 acres each. The remaining three-tenths, or 28.8 percent contained 250 acres and up.

TABLE 1. Average Size and Investment of Farms Surveyed, and of all Farms in Five Kentucky Counties.

County	Average Per Farm			
	Surveyed Farms		All Farms (1930 Census)	
	Acres	Investment	Acres	Investment
Christian	424	$32,516	114	$4,469
Todd	292	18,518	92	3,210
Bourbon	491	76,373	97	16,452
Taylor	117	7,442	70	2,881
Knott	129	3,346	78	1,864
All Counties	248	$21,287	93	$5,502

A similar analysis of the farms according to the size of investment showed that almost two-fifths, or 37.7 percent, had less than $5,000 invested per farm. The investment on two-fifths, or 40.4 percent, of the farms was from $5,000 to $25,000, while on all other farms the average was above $25,000.

The differences in the average size of both farms and investment, as suggested in Table 1, were extreme between counties. Within counties, also, these differences were pronounced. The smaller farms, both in size and investment, were in Taylor and Knott counties, altho, even in these counties, the number of farms ranging in size from 100 to 249 acres was quite large.

TABLE 2. Average Acreage per Farm, by Counties

Acreage	Number of Farms				
	Christian	Todd	Bourbon	Taylor	Knott
Less than 50	0	0	2	4	40
50 to 99	2	6	5	31	43
100 to 249	19	39	17	39	42
250 to 499	14	20	16	4	9
500 to 749	9	9	5	0	2
750 and over	9	4	13	0	3
Total Farms	53	78	58	78	139

TABLE 3. Average Acreage per Farm, by Counties

Investment	Number of Farms				
	Christian	Todd	Bourbon	Taylor	Knott
Less than $5,000	0	7	1	26	119
$5,000 to 9,999	10	24	4	34	13
10,000 to 24,999	18	26	17	18	4
25,000 to 49,999	12	18	8	0	3
50,000 and over	13	3	28	0	0
Total Farms	53	78	58	78	139

Manner of Investing Farm Capital. For this group of farms, fixed capital invested in land and improvements exceeded $7,000,000, or approximately 85 percent of the total. Of the remainder, which may be termed the farmers' working capital, 10 percent was invested in livestock. The proportions of capital invested in the various classes of farm property differed widely from county to county. For instance, the percentage of farm capital invested in livestock was 14.9 in Taylor county, where dairying is important, and was only 8.6 percent in Knott county. Conversely, land represented 52.5 percent of the total farm investment in Todd, and 70.7 percent in Knott county. The investment in farm dwellings ranged from 7.5 percent in Bourbon to 15.8 percent in Todd county. (For further details of farm investment by counties, see Table 4.)

It is interesting to note in this connection that there is essential agreement between these ratios of investment and those for all farms in the five counties as established by the Census of 1930. Of the total farm investment, according to the Census, fixed capital amounted to 85.7 percent, of which land alone equalled 60.5 percent and farm improvements, 20.2 percent. Livestock, on the other hand, represented 10.6, and machinery, 3.7 percent of the farm investment. Here again the counties differed considerably in the proportion of capital invested in the various classes of farm property. For instance, that invested in land alone ranged from 52.2 percent in Taylor to 65.1 percent

TABLE 4. Percentage of Capital Invested in the Various Classes of Farm Property, by Counties.

	Five Counties	Christian	Todd	Bourbon	Taylor	Knott
FIXED ASSETS*	Percent	Percent	Percent	Percent	Percent	Percent
Land	61.4	55.3	52.5	66.4	59.1	70.7
Dwellings	10.5	11.8	15.8	7.5	15.1	11.8
Other buildings	11.4	16.1	13.8	10.9		4.4
Fences	2.0	1.6	2.2	2.5		
TOTAL	85.3	84.8	84.3	87.3	74.2	86.9
LIQUID ASSETS						
Livestock	10.0	9.1	9.8	9.9	14.9	8.6
Machinery	2.9	4.3	3.8	1.8	5.1	2.6
Feed	1.8	1.8	2.1	1.0	5.8	1.9
TOTAL	14.7	15.2	15.7	12.7	25.8	13.1

*Fixed farm assets are those which are taxed **in situ**, while liquid assets are personal property and are ordinarily taxed where the owner resides. Cash sales of liquid assets can be readily effected at or near market values, whenever the liquidation of a farm business appears advisable or desirable, whereas at such times, quick sales of fixed farm assets for cash usually necessitate an undue sacrificing of owners' equities in such property.

in Bourbon, while the range for livestock was from 7.6 percent in Bourbon to 14.5 percent in Taylor county.

In the 1930 Census farms were classified according to the major source of income. According to this classification all these counties, except Knott, were crop-specialty areas, tobacco production being, of course, the major explanation. The self-sufficiency of agriculture in Taylor and Knott counties, as noted earlier (see pages 154 and 155), is also well substantiated by the Census of 1930. Of all farms in Knott county, 76.6 percent were classed as self-sufficing, and in Taylor county the corresponding percent was 19.

In a broader and more general sense, excluding Taylor county, all the areas included in this study may be termed general-farming sections. The emphasis in agricultural production as affecting ratios of fixed and liquid capital is directly reflected in the low percent, 74.2, invested in fixed farm assets in Taylor

county where 40 percent of all farms received 25 percent or more of their income from dairying. Contrariwise, in Bourbon county where farms are large, and added intangible value is attached to farm land ownership, the proportion of investment in fixed assets was highest.

SOURCE OF CAPITAL

Only isolated and unrelated studies have been made of the place and functon of borrowed capital in the various industries. Such as have been made indicate that agriculture occupies an intermediate position among the various industries in the use of credit. It has been estimated that in 1930 borrowed capital equalled 25 percent of the total farm investment in the United States. Mortgage loans represented 17.5 percent of this indebtedness and short-term loans, 7.5 percent.[1]

Turning for a moment to other industries which, like agriculture, have high ratios of fixed capital, we find that in 1922 funded debt equalled 51.5 percent of the total capitalization of privately owned central electric light and power stations; for electrical railways, the corresponding percent was 57.2; steam railroads, 59 percent; and the American Telephone and Telegraph Company, 43.6 percent.[2] The mortgage, or funded debt of 17.5 percent in agriculture is then much less than in the industries just cited. A business analysis of 188 commercial organizations, however, in 1921 showed that approximately 25 percent of the capital used was borrowed, of which 15 percent was long-term and 10 percent was short-term loans.[3]

Numerous reasons can be advanced to explain why agriculture uses less credit than other industries with correspondingly high ratios of fixed capital investment. Among the more apparent are the smaller producing units in agriculture; individual rather than corporate farm ownership; and agriculture, a way of life as well as a means of living. The significant fact remains, however, that American farmers are using credit more sparingly than many producers in other fields with similar ratios of fixed investment.

[1] U. S. D. A. Yearbook, 1932, pp. 502 and 892.
[2] Lee, Virgil P., Principles of Agricultural Credit. 1930, p. 4.
[3] Ibid.

In the following pages there appears a detailed discussion of the use of credit in 1929 by a large group of Kentucky farmers. The experiences of these farmers should be helpful both in broadening the general understanding of the place and function of credit in farming, and in aiding individual farmers to make wise decisions in their use of credit. Each indebted farmer discussed in this study was once in the position of deliberately choosing whether or not to go in debt. Once having gone in debt the problem became one of handling the credit obtained by borrowing to the best possible advantage.

Use of Credit. Credit in some form was used in 1929 on approximately two-thirds of the farms included in this survey. The total amount used was $1,264,312 which consisted of $974,067 of mortgage, $246,781 of cash,[4] and $43,474 of merchant credit. All credit used was equivalent to only 14.6 percent of the investment of these farms, and production credit alone, to 3.4 percent. These ratios of indebtedness were much lower than similar ones for agriculture as a whole in the United States in 1925.[5]

Expressed in slightly different form, these farmers as a group, possessed an equity, or net worth, of 85.4 percent in the properties nominally owned by them in 1929. Farm owners' equities ranged widely between counties, being lowest, or 71.6 percent, in Christian, and highest or 92.6 percent, in Knott county. The ratio of 91.7 percent in Bourbon county was also quite high. (See Table 5.) The small amounts of both cash and merchant credit used in Taylor and the relatively large total of short-term credit used in Christian county were rather striking.

When it is recalled that the worth above funded debt of the public utilities and carriers is less than 50 percent, (see preceding page), even the net worth of farmers in Christian county appears favorable. Certainly, in most counties the net worth of the farmers was such as to inspire confidence in their financial strength and ability. On the whole, a favorable impression is obtained from a detailed study of Table 5.

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[4] Short-term cash loans from banks and individuals.

[5] U. S. D. A. Yearbook, 1932, pp. 502 and 892. Also, Lee, Virgil P., Principles of Agricultural Credit, 1930, p. 9.

TABLE 5. Source of Capital on Selected Farms.
(In percent of total farm investment.)

County	Investment	Mortgage Credit	Cash Credit	Merchant Credit	Short Term Credit	All Credit	Net Worth
Christian	100	24.75	2.93	.72	3.65	28.40	71.60
Todd	100	17.18	2.91	1.03	3.94	21.12	78.88
Bourbon	100	4.67	3.34	.26	3.60	8.28	91.72
Taylor	100	11.31	.24	.27	.51	11.82	88.18
Knott	100	5.74	.98	.64	1.62	7.36	92.64
All Counties	100	11.27	2.86	.50	3.36	14.63	85.37

Why Do Farmers Borrow? The statements of bankers and farmers agreed that farm mortgages were most commonly assumed to purchase land. Bankers within the areas studied estimated that this was the purpose of 30 percent of the farm mortgages held by their banks, while 108 out of 164 mortgagors gave this as the reason for incurring such debts. The second most common purpose was to fund existing indebtedness while to make farm improvements and to buy livestock were the third and fourth.

The making of a farm mortgage as a step towards the ownership of a farm has long been regarded as a worthy purpose for incurring such indebtedness. This grows partly out of the inability of most farmers, either thru lack of knowledge or otherwise, to avail themselves of the corporate form of farm ownership. Some question has been raised as to the relative legitimacy of several purposes for which farm mortgages have commonly been given, but none as to the long standing use of farm mortgages to acquire land.

Cash credit obtained from banks and individuals, according to both bankers and farmers, was most extensively used to meet general farm expenses. Other important uses made of such loans were to buy livestock, to meet current living expenses, to market farm products later, and to purchase farm equipment. Merchant credit, except in Knott county, was used primarily

by farmers to purchase farm supplies, such as feed, seed, hardware, implements and the like. In Knott county, reflecting the pioneering stage of agriculture, practically all merchant credit was used to purchase household supplies.

Where Do Farmers Borrow? In answer to the query, where do farmers borrow, the local bank, as determined in this survey, was found to be the most universally used agency. In the case of mortgage credit, however, farmers had in all counties, excepting Knott, gained access to such outside credit sources as the large life insurance companies, federal and joint stock land banks, and the bulk, including especially the larger of their farm mortgage loans, were placed with such agencies. Individuals, particularly former farm owners, were also quite important both in the number and volume of farm mortgages held. Only local banks and individuals held any of the farm mortgages in Knott county. Here the average size of mortgages held by individuals was much smaller than that of those held by banks.

Practically all of the production credit used by these farmers, as already noted, except from merchants, was advanced by local banks. In the surveys of local credit facilities, however, it was found that tobacco warehousemen in Hopkinsville borrow large sums each spring and fall from their local banks, and in turn re-loan to tobacco growers. The amount so loaned in 1929 was in excess of $50,000. To what extent and how general is this practice among tobacco warehousemen over Kentucky, is not known, but in sum total the credit so advanced is probably quite important.

In all areas, much credit is obtained by farmers from car dealers. Car dealers in the three counties, Christian, Todd, and Taylor, estimated their credit sales of cars, tractors and trucks to farmers in 1929 at $247,500. It is interesting to note in this connection that these dealers sold 50 percent more used than new cars to farmers that year.

When Do Farmers Borrow? Apparently, seasonality is not a factor in the making of mortgage loans by farmers, but a cyclical sequence is definitely apparent. That is, during periods of

rising land prices farm mortgage loans are much more commonly incurred than during periods of falling farm land prices. Seasonality is, however, quite important in the borrowing of farmers for production. Spring was the season of the most frequent and extensive short-term borrowing from banks, while April was the outstanding month of initial farmer borrowing.

The peak of farmer borrowing at local banks usually occurs, however, from September thru November. During these months of 1929, six out of eleven bankers in the areas included in this study found it necessary to borrow $225,000 in order to meet the legitimate credit demands of their farmer patrons. Interest amounting to $3,800 was paid on these loans. Merchants stated that farmers' accounts reached the greatest volume during September, October and November with, however, a seasonal enlargement of importance in March and April. It should be noted in passing that in Knott county farmer accounts with merchants apparently are largest in May and June.

Upon What Terms Do Farmers Borrow? The high credit ratings of these farmers is reflected in the overwhelmingly large number who gave only personal notes as security for loans from banks and individuals. The average size of the bank loans made by this group of farmers, when compared with those reported by bankers in selected counties, is further evidence of this financial strength. Production loans of all farms included in this study averaged $1,802 in 1929. Production loans obtained from bankers by other farmers averaged $660 in Bourbon county; $300 in Knott; $283 in Taylor; and $244 in Todd. Similarly, credit obtained from merchants by the farmers included in this study averaged $332, whereas those reported by merchants for all farmers averaged $115 in Christian; $64 in Knott; $63 in Todd; $40 in Taylor; and $38 in Bourbon county. Another indication of financial strength rests in the fact that a little more than one-third of these farmers did not find it necessary to use credit of any kind. Bankers, without exception, stated that they extended credit to farmers upon the basis of their personal knowledge of the applicant. Factors listed by bankers as influencing them in whether or not to extend credit to a farmer included: (1) ability to earn; (2) property owned clear of en-

cumbrances; (3) production possibilities; (4) former promptness in meeting debts; (5) personal character; (6) living habits; and (7) thrift.

MORTGAGE INDEBTEDNESS.

Two-fifths, or 40.4 percent, of the farms in this study were mortgaged. More of the farms were mortgaged in some counties than in others. In all counties, the percentages of farmers reporting mortgages were higher than similar percentages for all owner-operated farms as established by the Census of 1930, but the same relationship between counties was maintained. (See Table 6 for the numbers and percent of mortgaged farms by counties.)

TABLE 6. Total Number of Farms, and Number and Percent of Mortgaged Farms, Selected Kentucky Counties, 1929.

	Number of Farms	Farms Mortgaged	
		Number	Percent
Christian	53	34	64.2
Todd	78	33	42.3
Bourbon	58	21	36.2
Taylor	78	38	48.7
Knott	139	38	27.3
All Counties	406	164	40.4

The average size of the mortgaged farms was larger than that of the non-mortgaged in all but two counties, Bourbon and Taylor. More will be said later relative to the large land holdings of farmers in Bourbon county, as influencing farm ownership thru inheritance. Also, the average size of the farm investments of mortgaged farms was larger than that of the non-mortgaged farms in all but one county, Bourbon. The very large average investment in that county resulted in a larger average investment for the non-mortgaged farms. (See Table 7.)

Mortgage indebtedness amounted to $974,067, or 29.8 per-

TABLE 7. Average Size and Investment per Mortgaged and Non-Mortgaged Farm, Selected Kentucky Counties, 1929.

	Average Size of Farms		Average Investment Per Farm	
	Mortgaged Farms	Non-Mortgaged Farms	Mortgaged Farms	Non-Mortgaged Farms
	Acres	Acres		
Christian	431	412	$33,204	$31,283
Todd	293	291	21,650	17,331
Bourbon	295	602	45,859	93,691
Taylor	107	126	7,622	7,271
Knott	171	113	4,483	2,918
All Counties	250	246	$19,917	$22,216

cent of the total investment of all mortgaged farms. All mortgages, including second, numbered 171, or seven more than the actual number of mortgaged farms. The average size of all mortgage loans was $5,696. Differences in the size of loans were extreme both between counties, and from different loaning agencies. For instance, the average size of farm mortgage loans ranged from $702 in Knott to $12,186 in Christian county. Again, loans from individuals in Knott county averaged $231 while those from life insurance companies in Christian county averaged $17,608. (See Table 8.)

Interest was payable and payments were due annually on 87 first farm mortgages, semi-annually on 71, and otherwise on 6. The weighted average interest rate on all farm mortgage loans was 5.7 percent, with practically no differences among counties, except Knott where the rate was 6.4 percent. Altho all the loans of life insurance companies, except three, were in Todd and Christian counties, the volume of these loans represented 42 percent of the entire mortgage indebtedness of all farms. Commercial banks were second in the volume held, 16 percent, while the remaining 42 percent was divided equally among the federal land bank, joint stock land banks, and individuals.

Only those farm mortgages held by the federal land bank,

TABLE 8. Number, Amount and Average Size of Farm Mortgage Loans, by Counties and Sources, Selected Farms, 1929.

Sources of Loan	Christian			Todd			Bourbon		
	Number	Amount	Average	Number	Amount	Average	Number	Amount	Average
Federal Land Bank	10	$68,600	$6,860	5	$22,800	$4,560	4	$23,570	$5,893
Insurance Companies	13	228,900	17,608	18	146,225	8,124	2	30,000	15,000
Joint Stock Land Bank	2	31,000	15,500	1	19,000	19,000	8	82,067	10,258
Individual Loans	5	52,000	10,400	5	30,950	6,190	2	26,000	13,000
Commercial Banks	5	46,000	9,200	7	29,200	4,171	5	45,400	9,080
All	35	$426,500	$12,186	36	$248,175	$6,894	21	$207,037	$9,859

	Taylor			Knott			Five Counties		
Federal Land Bank	12	$25,452	$2,121				31	$140,422	$4,530
Insurance Companies	1	5,000	5,000				34	410,125	12,063
Joint Stock Land Bank							11	132,067	12,006
Individual Loans	18	23,540	1,308	20	$4,618	$231	50	137,108	2,742
Commercial Banks	10	11,675	1,168	18	22,070	1,226	45	154,345	3,430
All	41	$65,667	$1,602	38	$26,688	$702	171	$974,067	$5,696

the joint stock land banks, and a few life insurance companies, provide an amortized plan of repayment. However, if future

payments continue to be made on the mortgages now outstanding as in the past, the time required to retire the present volume of farm mortgage indebtedness in each county will closely approximate the 20 to 35 years' period provided by the federal farm loan system for the repayment of mortgage loans. In Christian county, for example, the unpaid balance of the mortgages in force on the surveyed farms, June 30, 1930, was $426,500. The original amount of these mortgages was $546,350. The average amount paid annually on these mortgages over the 8 years they had been outstanding was $14,981. At this rate of annual repayment, 28 years would be required to retire the face value on June 30, 1930, of the mortgages in question. Similar computations for the other counties show that the time required in Todd county would be 26 years; in Bourbon, 26 years; in Taylor, 22 years; and in Knott, 10 years.

Farm Mortgage Loaning Agencies. As suggested in the preceding section, the degree of commercialization attained by the agriculture of a region together with the number and type of outside lending agencies operating in an area, determine in large measure the volume, form, source and use of farm mortgage credit locally. It follows, quite naturally, that the methods, uses and practices relating to short-term or seasonal credit are correspondingly influenced. The sources of farm mortgage loans differed markedly among counties. For instance, the outstanding source of such credit in Todd and Christian counties was life insurance companies. In Bourbon county, the most important single source was the joint stock land banks, while in Taylor county the federal land bank was preeminent. In Knott county, farm mortgage loans were held entirely by commercial banks and individuals. The only important sources of of farm mortgage credit common to all areas, were commercial banks and individuals. (See Table 8 for details of sources, size and number of farm mortgage loans by counties.)

Distribution of Farm Investment. The manner in which a farmer invests his capital is significant as indicating his efficiency of management. Mortgaged and non-mortgaged farms

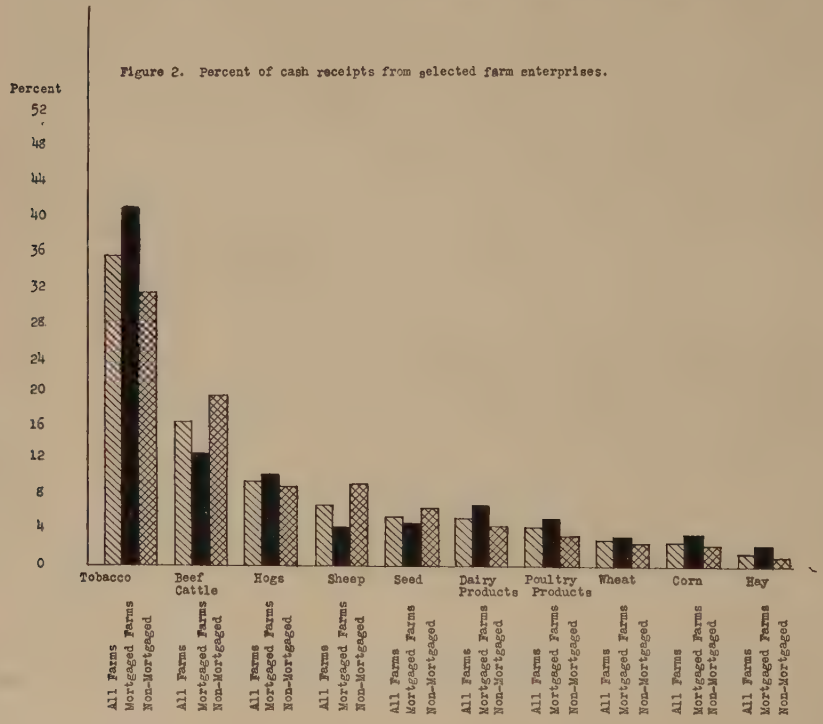
differed appreciably in the amounts of capital invested in the various classes of farm property.

Land alone represented 61.4 percent of the total investment of all farms, while on mortgaged farms only, the percent so invested was 58.2, and on the non-mortgaged, 63.4. The dwelling investment for all farms was 10.5 percent, and ranged from 9.4 percent on the non-mortgaged to 12.4 percent on the mortgaged farms. Other buildings represented 11.4 percent of the total investment of all farms, 10.7 percent of the non-mortgaged, and 12.7 percent of the mortgaged farms. The amounts invested in livestock were 10.0 percent for all farms, 10.5 percent for non-mortgaged, and 9.2 percent for mortgaged farms. The investment in farm machinery ranged from 2.4 percent on the non-mortgaged to 3.8 percent on the mortgaged farms, and was 2.9 percent for all farms.

Briefly summarizing, the chief earning assets of a farmer are land and livestock. This being true, it would appear that the non-mortgaged farms, with land and livestock representing 73.9 percent of their investment, occupied a stronger earning position than the mortgaged farms with 67.4 percent of their capital so invested. Dwellings and other buildings ordinarily only indirectly contribute to farm production, and cannot therefore be classed as major farm earning assets. Here, again, the non-mortgaged farms, with 20.1 percent of their capital invested in dwellings and other buildings, occupied a stronger earning position than the mortgaged farms, with 25.1 percent so invested. Complete recognition of the varying ratios invested in major earning assets on the mortgaged and non-mortgaged farms revealed a differential earning advantage for the latter of 11.5 percent.

Sales and Receipts. Crop sales, plus net livestock production, which includes yearly increases of inventories as well as livestock sales, amounted to $3,751 per farm in 1929. Crop sales contributed $2,129 of this amount and net livestock production, $1,622. Tobacco was the outstanding cash crop, except in Knott county. Excluding this county, tobacco sales exceeded 50 percent of the total cash farm income on more than one-

fourth of the farms in 1929. Beef cattle was the second ranking farm enterprise in the share of cash receipts contributed, further indicating the large-scale operations of these farmers. The sale of tobacco accounted for 35.6 percent of the total cash receipts



of all farms in 1929; beef cattle, 16.4; hogs, 9.8; sheep, 7.1; seed, 5.5; dairy products, 5.5; poultry products, 4.4; wheat, 2.8; corn, 2.8; and hay, 1.7.

Crop sales contributed 53.2 percent of the total cash receipts of mortgaged farms in 1929, and 43.6 percent of the non-mortgaged. Only in the case of one crop, that of seed, were sales on non-mortgaged farms larger than those on mortgaged farms. Net livestock production contributed 43.6 percent of the total cash receipts of mortgaged farms in 1929, and 46.5 percent of the non-mortgaged. Only in beef cattle and sheep did sales

excel on non-mortgaged farms among the livestock and poultry enterprises.

The average amount of cash receipts was larger on mortgaged farms than on non-mortgaged farms in all counties except Bourbon. Different interpretations may be placed upon the meaning and significance of this situation. Possibly the pressure of meeting yearly debt and interest payments caused the owners of mortgaged farms to stress the production of cash crops. Again, the owners of non-mortgaged farms, not being confronted with fixed debt obligations, may have tended to overcapitalize farm values. At any rate, commercialization of agriculture has apparently proceeded further on the mortgaged farms, and even after due allowance has been made for the larger yearly debt and interest payments, the ratio of net receipts to farm investment was slightly higher on the mortgaged farms.

Types of Farm Enterprises. An analysis by types of the various farm enterprises and their relative importance on mortgaged and non-mortgaged farms also showed the greater emphasis upon cash crop production on the mortgaged farms. This was true alike of corn, wheat, hay and tobacco, but particularly so of tobacco. Both the proportion of farms growing tobacco and the share of income arising from the sale of tobacco were greater by approximately one-third on the mortgaged farms.

Turning to livestock production, we find a rather reversed, but somewhat mixed situation. As previously pointed out, a decidedly larger share of the cash farm income arose from the sale of livestock on the non-mortgaged farms. The sale of sheep was twice as important on the non-mortgaged farms and beef cattle sales were half again as important. The sale of hogs, however, was slightly more important on mortgaged farms, and sales of dairy and poultry products were considerably more important. However, the relatively greater importance of beef cattle and sheep, was sufficient to discount the advantages accruing to the mortgaged farms in hog, dairy and poultry production.

Taxes. On the non-mortgaged farms taxes represented 6 percent of the total cash receipts, while on the mortgaged farms

they represented only 3.5 percent. This greater share of the cash income required for the payment of taxes on the non-mortgaged farms is merely further evidence supporting the contention made elsewhere in the study that a commercialized type of production had reached a higher stage of development on the mortgaged farms.

The taxes paid in 1929 by the owner-operators of farms as reported in the 1930 Census showed that in the State as a whole farmers paid 42 cents of taxes per acre on land and buildings alone, or 1.01 percent of their value. For all farms included in this study the taxes paid in 1929 on land and improvements amounted to 80 cents per acre and to 1.09 percent of their value. The amounts paid per acre together with the ratio of taxes to value for the counties included in this study both as reported by the Census and as determined in the survey were as follows:

County	Christian		Todd		Bourbon		Taylor		Knott	
	Census	Survey	Census	Survey	Census	Survey	Census	Survey	Census	Survey
Taxes per acre—cents	31	62	31	56	179	162	24	32	22	26
Ratio of taxes to value—percent	1.0	0.96	1.14	1.04	1.08	1.19	0.73	0.74	1.12	1.13

Except in the amount of taxes paid per acre in Christian and Todd counties, the similarity between these series of figures is quite close and striking.

Age of Farm Operator and Length of Ownership. Generally speaking, the operators of mortgaged farms were somewhat younger than the operators of non-mortgaged farms. The median age of all farmes, whose ages were ascertained, was 48 years. The median age of operators of mortgaged farms was 47 years, while on the non-mortgaged farms the median age of operators was 49 years. (See Table 9.)

The average length of farm ownership was decidedly

TABLE 9. Median Ages of Operators of Mortgaged and Non-Mortgaged Farms, Selected Kentucky Counties, 1929

	All Farms Years	Mortgaged Farms Years	Non-Mortgaged Farms Years
Christian	50	50	50
Todd	50	49	50
Bourbon	50	42	55
Taylor	43	41	46
Knott	45	45	45
All Counties	48	47	49

shorter on the mortgaged farms, being 12.1 years, while on the non-mortgaged farms the average was 21.1 years. Length of ownership ranged from 11.2 years on mortgaged farms to 24.4 years on non-mortgaged farms in Bourbon county. The other two counties occupied intermediate positions in this particular. Details of the average length of farm ownership by counties are given in the following summary.

County	All Farms Years	Mortgaged Farms Years	Non-Mortgaged Farms Years
Christian	15.6	13.1	20.3
Todd	15.8	11.7	18.8
Bourbon	19.2	11.2	24.4
All counties[6]	16.8	12.1	21.1

[6] Not including Knott and Taylor counties since data on length of farm ownership were unavailable in these counties.

The fact that the operators of mortgaged farms were younger and that their tenure of ownership was shorter, indicates that the assumption of mortgage indebtedness on many of these farms was a step towards ownership. It would be interesting and enlightening to know the extent of farm inheritance among the operators of these farms.

Interest and Debt Payments. Assuming that the interest payments on the outstanding farm mortgages were met in 1929 and that normal annual payments were made, the average expenditures per mortgaged farm for these purposes were $532;[7] assuming also that all short-term loans made during the year were liquidated, that the interest charges on these loans were paid, and that the current year's accounts with merchants were paid, the combined average debt charges on mortgaged farms were $1,441.

Non-mortgaged farms have no mortgage payments and interest charges thereon to meet. At the same time, altho the average amount of cash credit used per farm was larger on the non-mortgaged farms, the proportion of farms using this type of credit was decidedly smaller, and fewer of these farms used merchant credit. Accordingly the average debt payments per non-mortgaged farm were low. Thru a similar computation for non-mortgaged farms, an average debt payment of $611 was determined. Thus debt charges per farm were $830 less on the non-mortgaged farms, and only lacked $122 of being sufficient to compensate for the larger average cash receipts of the mortgaged farms. When figured upon a shorter period of repayment the greater debt charges on the mortgaged farms practically cancel the greater cash incomes enjoyed by these farms. (See footnote 7.)

Farms with High and Low Ratios of Mortgage Indebtedness. An attempt was made to ascertain the reasons for high and low ratios of fixed indebtedness to investment within the group of mortgaged farms in four counties.[8] For this purpose, the five farms in each county with the highest ratios of mortgage indebtedness were compared on several points with the five farms with the lowest ratios. The average investment of the farms with the highest ratios of mortgage indebtedness was $18,419, or only about three-fifths that of the farms with the

[7] Figured upon a 33 years amortized basis of payment as provided in most of the loans by the Federal Land Banks. Shortening the calculated period of repayment accordingly increases the fixed debt expenditures on mortgaged farms. For instance, figured upon a 20 years amortized basis, the fixed debt charges increase to $636, and the total annual debt payments amount to $1,545.

[8] Omitting Knott County.

lowest ratios of such indebtedness. The average size of the mortgages in the former group was $11,185, or 61 percent of the average capital investment, while in the latter group the mortgages averaged $4,193, which represented only 11 percent of the average investment of these farms.

The operators of the farms with the highest ratios of mortgage indebtedness were younger than the operators of the farms with the lowest mortgage ratios. The average age of the former was 46 years and of the latter, 50 years. Also the farms with the highest ratios of mortgage indebtedness had been owned by the present operators an average of 10 years, while the second group of farms had been so owned, 13 years. Here again, the length of ownership and the age of the farm operators appeared to be factors directly affecting the status of mortgage indebtedness.

Total cash receipts and expenses were larger on the farms with the lowest ratios. The margin of receipts over expenses was also greater, altho the proportion of this margin to total receipts was smaller. Both crop sales and net livestock production were larger on the farms with the lowest mortgage ratios, but the relative importance of crop sales was greater on the farms with the highest mortgage ratios. Total cash receipts averaged $6,183 on the farms with the lowest mortgage ratios, and expenses, $3,860. On the farms with the highest mortgage ratios, cash receipts averaged $4,576, and expenses, $2,621. Crop sales and net livestock production averaged, respectively, $3,284 and $2,456 on the former group of farms, and $2,676 and $1,649 on the latter group of farms.

Briefly summarizing, the mortgaged farms with the highest ratios of such indebtedness were generally smaller than those with the lowest ratios. Cash crop production was much greater on the more heavily mortgaged farms, while livestock production was more important on the less heavily mortgaged farms. The latter fact probably accounts largely for the more extensive use of short-term credit, particularly from banks, on farms with the smallest mortgages. The farms with the highest ratios of

mortgage indebtedness had also been owned by the present operators a shorter time, and the operators were younger.

Tobacco Production as a Factor.[9] In order to determine the influence of tobacco production upon farm mortgage indebtedness and the use of short-term credit, farms were divided into four groups; first, mortgaged farms with 50 percent of their income from the sale of tobacco; second, mortgaged farms with less than 50 percent of their income from the sale of tobacco; third, non-mortgaged farms with 50 percent of their income from the sale of tobacco; and, fourth, non-mortgaged farms with less than 50 percent of their income from the sale of tobacco.

This classification showed that the average investment of the farms with less than 50 percent of their income from the sale of tobacco was larger than that of the farms with more than 50 percent of their income from this source. This was particularly true of the non-mortgaged farms. The ratio of mortgage indebtedness to farm value was somewhat higher on the farms with more than 50 percent of their income from the sale of tobacco.

The percent of the farm capital invested in the various classes of farm property was quite different depending upon the relative importance of tobacco sales to total farm income. On those farms with 50 percent or more of their income from the sale of tobacco the percentages invested in buildings and fences were greater, and the percentages invested in land and livestock were less than on the other farms. (See Table 10.)

Land and livestock are the major earning assets in the sense of contributing directly to farm income, while buildings and fences, except in special types of farming, contribute only indirectly. Direct comparison of the farms with less than 50 percent of their income from tobacco sales with the farms with more than 50 percent of their income from this crop, gives an advantage of 14.3 percent to the former group of farms in the

[9] Knott county was not included because of the minor importance of tobacco production. Only 8 out of 139 farms reported the growing of tobacco in 1929 and the combined value of these eight crops was only $55.

TABLE 10. Distribution of Investment on Farms with More or Less than 50 Percent of Their Incomes from Tobacco.

Percent Invested in	Income from the Sale of Tobacco	
	50 Percent or More Percent	Less than 50 Percent Percent
Real Estate	57.6	61.7
Dwelling	14.1	9.8
Other Buildings	13.6	11.4
Fences	1.8	1.8
Livestock	8.2	10.6
Machinery	3.1	2.9
Feed	1.5	1.8

ratio of the farm capital invested in the major and primary farm earning assets.

Despite the fact that farms with more than 50 percent of their income from tobacco were smaller, total crop sales per farm were larger, being $3,870 compared with $2,863 on the farms with less than 50 percent of their income from tobacco sales. Net livestock production on farms with less than 50 percent of their income from the sale of tobacco, however, was more than twice as great, being $2,826 compared with $1,367 on the other farms.

Short-term credit, including cash and merchant, was used on a much larger proportion of the farms with 50 percent or more of their income from the sale of tobacco. The percent of mortgaged farms using short-term credit was 73, and for non-mortgaged, 48. The corresponding percents for farms with less than 50 percent of their income from tobacco sales were 48 and 33.

On the farms having more than 50 percent of their income from the sale of tobacco, the percent using merchant credit was 46, and ranged from 26 percent on the non-mortgaged farms to 63 percent on the mortgaged. Merchant credit was used on 34 percent of all farms with less than 50 percent of their income from the sale of tobacco, and ranged from 27 percent on the non-mortgaged farms to 43 percent on the mortgaged.

The proportion of mortgaged farms in both income groups

using either or both types of short-term credit was, therefore, much higher than that of the non-mortgaged farms. On the mortgaged farms, with more than 50 percent of their income from the sale of tobacco the average amount of cash credit used was $1,676, whereas the average amount used per non-mortgaged farm was $2,149, or $473 more. On the other hand, the average amount of merchant credit used per mortgaged farm was $386, while the average amount used per non-mortgaged farm was $363, or $23 less.

A larger proportion of the farms with more than 50 percent of their income from tobacco was mortgaged than of the farms with less than 50 percent of their income from tobacco. The percents were, respectively, 32 and 22, both well below the percent, 40.4, of all farms that were mortgaged.

Dairying as a Factor. Dairy farms were arbitrarily defined as those on which 25 percent or more of the cash income was received from the sale of dairy products. According to this classification, the number of dairy farms was negligible except in Taylor county where a large milk condensery is located. The average investment of dairy farms in all counties, except Taylor, was considerably smaller than that of other farms. In Taylor county, however, the average investment per dairy farm was approximately one-third larger than the average for all farms. With reference to the use of short-term credit, it is problematical whether the small number of dairy farms outside of Taylor county is large enough to draw any conclusions. At any rate, the proportion of these farms using both kinds of short-term credit was greater than for all farms, but the average amounts used per farm were smaller.

In Taylor county, however, where dairying was important on 33 out of 78 farms, the proportion of these farms using both cash and merchant credit was larger than for other farms, and the average volume of cash credit used per farm was larger, but the average volume of merchant credit used per farm was smaller.

Other Factors. Apparently size is one of the factors affecting farm mortgage status. It appears that fewer of the farms

of 100 acres and less, and of 750 acres and over, were mortgaged than of the intermediate sized farms ranging from 100 to 750 acres. Similarly, fewer farms with total valuations of $2,000 and less, and with $75,000 and over, were mortgaged than farms with intermediate valuations. The risk involved in mortgage loans on small farms of low value may tend to explain the first situation, while inheritance probably is the chief explanatory factor in the second. A classification of farms according to size of cash receipts, crop sales and livestock production shows that the proportion of mortgaged farms increases progressively with size of the business.

Resume. Thus both internal and external factors directly influence the mortgage status of individual farms. Many of these factors are subject to the farmer's control, but many are not. For example, a new barn must be built if a farmer expands his tobacco acreage. He may either borrow capital and build now or wait and build later from accumulated savings. Again, a neighboring field may be purchased at once thru borrowing, but its purchase must be deferred if debt is not to be incurred. A classic example of a situation which vitally affects the credit status of individual farmers, and about which they can do little or nothing is the present economic depression. Thirty-cent wheat and five-cent cotton, with farm valuations as now established, are devastating in their effects upon the maintenance of the equities now held in farm properties by the great mass of American farmers.

Moreover, in many instances the effects of slow economic changes materially contribute to the creation of difficult farm credit situations because of the inability or unwillingness of farmers to adjust their farming operations to new circumstances. For instance, the very high percentage of mortgaged farms in one area studied undoubtedly has resulted in large part from the break-down of an agricultural system which during the preceding decade was so prosperous as to attract nation-wide approbation. Wheat, red clover, hogs, beef cattle and black tobacco formed the base of the agricultural system which brought local prosperity and caused this county to be singled

out in the 1915 United States Department of Agriculture Yearbook as a model, thriving agricultural county.[10] Wheat production became unprofitable following the late war. Red clover declined to a point where it no longer met the need for legumes in maintaining soil productivity. With poor pastures, hog and beef cattle production became unprofitable. Finally, foreign demand for black tobacco ceased. Collapse of the former agricultural system speedily followed. Today no new satisfactory system of farm production has been developed.

Under the former prevailing agricultural system mortgages were assumed on a large scale by farmers. Outside lending agencies were eager to place mortgage loans under such favorable economic conditions. Following the collapse of this livestock, small grain, and black tobacco system of farming, both mortgagors and mortgagees were equally anxious to be rid of their farm mortgages. Various palliatives were undertaken. These included the creation of a large volume of new farm debt in the form of second mortgages in attempting to save part or all of that already loaned. Also, many farmers, who believed in a return of prosperity to the county, continued to borrow from lenders of the same belief. All in all, these local conditions have resulted in the assumption of a volume of farm mortgage indebtedness of almost unmanageable proportions in this county.

SEASONAL OR SHORT-TERM CREDIT.

Either cash or merchant credit was used in 1929 on 196, or 48.3 percent of all farms included in this study. The two kinds of credit were used in a ratio of $6 of cash credit to $1 of merchant credit. Relatively and absolutely, more merchant credit was used on mortgaged farms. A higher percentage of the mortgaged farms used cash credit, but the amounts used per farm were smaller.

In Christian, Bourbon and Todd counties, about two-thirds of the farmers used short-term, or seasonal credit, while in Taylor and Knott counties the proportion was only about one-third.

[10] U. S. D. A. Yearbook, 1915, pp. 225-237.

Cash credit was used on approximately one-third of all the farms in 1929. The ratio using merchant credit was practically the same. Because of the influence of the very large farms in Christian, Todd and Bourbon Counties, the average size of the farms using cash credit was almost four times as great as that of the farms not using it.

More of the farmers on mortgaged farms used short-term credit, and except in Bourbon county the average amount used per farm was greater. (See Table 11.) Even in Bourbon county, the amount used represented a larger proportion of the average investment on the mortgaged farms.

The average amount of short-term credit used per farm was $1,481, while for the mortgaged farms the average was $1,490, and for the non-mortgaged, $1,472. The amounts of merchant credit used averaged $332 for all farms, $397 for mortgaged, and $259 for non-mortgaged.

The very large average volume of cash credit used per non-mortgaged farm in Bourbon county probably resulted both from the large investment per farm and the high degree of commercialization of agriculture already attained in that county. The small average amounts of such credit used in Taylor county, and the small number of farmers even using such credit, on the other hand, reflect the smaller farm investments in that region, as well as the emphasis on dairying already noted. The very small investments, plus the prevailing self-sufficing type of agricultural production, explain the small amounts of short-term credit used in Knott county as well as the small proportion of farms using such credit.

Borrowing for general farm expenses was the reason most commonly given for obtaining cash credit. Purposes given by 140 farmers for such loans were: general farm expenses, 69; general farm expenses and to purchase livestock, 20; to purchase livestock, 12; and other reasons, 39. (See Table 12.)

The large number listed under "other" in Todd county included many purposes, while in Knott county, "other" included eight who stated that they borrowed to pay living and house-

TABLE 11. Number of Farmers Using Short-Term Credit, and Average Amounts Used per Farm, 1929, Selected Kentucky Counties.

	Number of Farms	Farmers Using Credit		Ave. Total Amount Per Farm Using Credit	Farmers Using Cash Credit		Average Total Amount Per Farm Using Cash Credit	Merchant Credit		
								Farmers Using Merchant Credit		Ave. Total Amt. Per Farm Using Merchant Credit
		Number	Percent		Number	Percent of Total Using Credit		Number	Percent of Total Using Credit	
ALL COUNTIES										
All Farms	406	196	48.3	$1,481	137	69.9	$1,802	131	66.8	$332
Mtg. Farms	164	98	49.8	1,490	74	75.5	1,603	69	70.4	397
Non-Mtg. Farms	242	98	40.5	1,472	63	64.3	2,034	62	63.3	259
CHRISTIAN										
All Farms	53	38	71.7	1,665	34	89.5	1,498	26	68.4	474
Mtg. Farms	34	26	76.5	2,048	24	92.3	1,809	18	69.2	545
Non-Mtg. Farms	19	12	63.2	835	10	83.3	750	8	66.7	315
TODD										
All Farms	78	50	64.1	1,137	41	82.0	1,024	33	66.0	450
Mtg. Farms	33	28	84.8	1,321	23	82.1	1,170	21	75.0	480
Non-Mtg. Farms	45	22	48.9	903	18	81.8	837	12	54.5	399
BOURBON										
All Farms	58	40	69.0	3,991	35	88.5	4,226	22	55.0	533
Mtg. Farms	21	17	81.0	3,044	15	88.2	3,079	11	64.7	505
Non-Mtg. Farms	37	23	62.2	4,691	20	87.0	5,085	11	47.8	562
TAYLOR										
All Farms	78	27	34.6	109	11	40.7	129	20	74.1	77
Mtg. Farms	38	17	44.7	142	8	47.1	149	13	76.5	94
Non-Mtg. Farms	40	10	25.0	54	3	30.0	75	7	70.0	45
KNOTT										
All Farms	139	41	29.5	187	16	39.0	291	30	73.2	100
Mtg. Farms	38	10	26.3	166	4	40.0	228	6	60.0	125
Non-Mtg. Farms	101	31	30.7	190	12	38.7	304	24	77.4	94

TABLE 12. Reasons Given by Farmers for Obtaining Cash Credit, Selected Kentucky Farms, 1929.

	Christian	Todd	Bourbon	Taylor	Knott	All Farms
General Farm Expense	18	26	14	9	2	69
General Farm Expense and Livestock	6	0	13	1	0	20
To Purchase Livestock	3	2	60	0	1	12
Other	8	15	2	1	13	39

hold expenses. This is a logical purpose in a region so dominated by a self-sufficing type of agriculture.

Only about one-third of the farmers used merchant credit during 1929. In Christian county, where 26 out of 53 farmers used merchant credit, the use of this type of short-term credit was most extensive. Stores selling strictly for cash have had a remarkable growth in recent years. An attempt was made in this study to measure the patronage of this group of farmers at such stores. All farmers were asked to estimate the ratio of goods purchased by them during 1929 at strictly cash stores. The percent so determined for all areas was 10, and ranged from 1.6 percent in Knott to 20.2 percent in Bourbon county. Groceries were by far the most important type of merchandise so purchased.

Of 301 farmers expressing an opinion, 112 reported that merchant credit had become less important to them in the last five years, 153 that there had been little change, and 46 that this form of credit had become more important to them. Of the latter group, 26 were in Knott county where commercialized agricultural production has hardly begun and where newer types of farm credit agencies are not yet generally available. Quite evidently, country merchants for these farmers are less important sources of credit than formerly.

The average length of cash credit loans on all farms was 5.5 months, on mortgaged farms, 5.0 months, and on non-mort-

TABLE 13. Number of Farmers Using Short-term Credit and Average Amounts Used per Farm, Together with Average Length of Loan and Interest Cost, 1929, Selected Kentucky Counties.

Area and Tenure	Total Short-term Credit			Cash Credit				Merchant Credit		
	Farmers Using Credit	Amount	Average Term (Weighted) Months	Farmers Using Credit	Amount	Interest (Weighted) Percent	Average Term (Weighted) Months	Farmers Using Credit	Amount	Average Term (Weighted) Months
ALL COUNTIES										
All Farms	196	$1,481	5.5	137	$1,802	6.2	5.5	131	$332	6.3
Mtg. Farms	98	1,490	5.2	74	1,603	6.3	5.0	69	397	6.6
Non-Mtg. Farms	98	1,472	5.7	63	2,034	6.1	5.7	62	259	5.6
CHRISTIAN										
All Farms	38	1,665	4.9	34	1,498	6.5	4.4	26	474	6.9
Mtg. Farms	26	2,048	5.1	24	1,809	6.5	4.5	18	545	7.4
Non-Mtg. Farms	12	835	3.9	10	750	6.7	3.5	8	315	5.3
TODD										
All Farms	50	1,137	5.4	41	1,024	6.7	4.7	33	450	7.1
Mtg. Farms	28	1,321	5.3	23	1,170	6.8	4.7	21	480	6.8
Non-Mtg. Farms	22	903	5.5	18	838	6.6	4.8	12	399	7.6
BOURBON										
All Farms	40	3,991	5.8	35	4,226	6.0	5.9	22	533	5.3
Mtg. Farms	17	3,044	5.1	15	3,079	6.0	5.0	11	505	6.2
Non-Mtg. Farms	23	4,691	6.1	20	5,085	6.0	6.2	11	562	4.4
TAYLOR										
All Farms	27	109	7.1	11	129	6.1	5.8	20	77	8.2
Mtg. Farms	17	142	7.2	8	149	6.0	6.1	13	94	8.3
Non-Mtg. Farms	10	54	6.6	3	75	6.3	4.4	7	45	8.2
KNOTT										
All Farms	41	187	6.1	16	291	6.3	7.6	30	100	4.0
Mtg. Farms	10	166	6.6	4	228	6.8	9.6	6	125	3.1
Non-Mtg. Farms	31	190	6.0	12	304	6.2	6.8	24	94	4.3

gaged farms, 5.7 months, while the range was from 4.4 months in Christian to 7.6 months in Knott county. On mortgaged farms, the average length ranged from 4.5 months in Christian to 9.6 months in Knott county, and on non-mortgaged farms from 3.5 months in Christian to 6.8 months in Knott county. (See Table 13.)

The average length of store accounts for all farms was 6.3 months with an extreme range from 3.1 months on mortgaged farms in Knott county to 8.3 months on mortgaged farms in Taylor county. The greater average length of store accounts suggests first that the primary function of merchants is to sell goods rather than to extend credit, and secondly, the greater efficiency of banks in extending credit.

The interest rates on cash credit loans ranged from 6 to 8 percent, with an average weighted rate for all loans on all farms of 6.2 percent, on mortgaged farms of 6.3 percent, and on non-mortgaged farms of 6.1 percent. Interest rates averaged highest in Knott, Todd and Christian counties, and lowest in Bourbon and Taylor counties.

Probably in Bourbon county the better banking facilities, and the very large farm holdings of individual operators, accounted largely for the prevailing interest charge of 6 percent on short-term loans. In Taylor county, the chief reason for the low interest rates was probably the yearly distributed income of dairy farmers. The inherent risk in the type of agricultural production being carried on, and the financial strength and integrity of individual farmers also explain, in very large degree, varying interests rates for short-term loans on different farms.

SUMMARY

The findings of this study are not such that definite conclusions and recommendations relative to farm credit and its management can be made. However, it is possible to suggest certain improvements, and to point out tendencies. The reader should remember that the following remarks are pertinent to large owner-operated farms only.

1. Debt and interest charges equalled two-thirds of the cash income of Kentucky farmers in 1929, a relatively prosperous year for agriculture. In 1930, such charges equalled the entire cash income, while in both 1931 and 1932, they actually exceeded cash farm income. Thus greater efforts to determine correct farm credit principles and practices and to acquaint farmers with these findings appear to be justified. The importance of debt suggests the advisability of many farmers taking on new enterprises in order both to increase their cash incomes, and also to economize effectively and efficiently in the use of credit.

2. Cash crops, particularly tobacco, occupied a more important place in the production program of mortgaged farms. Similarly, short-term credit was used on a larger proportion of both mortgaged farms and farms of intensive tobacco production. The use of merchant credit was particularly prevalent and widespread on the latter farms.

3. Non-mortgaged farms, with a larger ratio of investment in land and livestock and a smaller ratio of investment in dwellings and other buildings than mortgaged farms, apparently occupied a decidedly stronger earning position. The total differential earning advantage of the non-mortgaged farms was 11.5 percent.

4. The owners of mortgaged farms were younger, and had on the average held title to their farms a shorter time than had the owners of non-mortgaged farms. The greater age of the operators of non-mortgaged farms and the major purpose (to buy land) of farm mortgage loans as reported by both bankers and farmers jointly suggest that farm mortgage indebtedness is rather generally a step leading to ownership.

5. Less merchant credit was used by farmers in 1929 than in former years, and concomitantly farmers were buying more and more of their goods at cash stores. A growing realization among farmers of the relatively high annual cost of merchant credit, 24 percent as estimated in this study in contrast to 6.2 percent for cash loans from banks and individuals, probably accounts primarily for this shift.

6. If payments on the mortgages against these farms continue to be made as they have been in the past, the length of time required in most instances to repay them will approximate the amortized period provided by the Federal Land Banks. Farm mortgage loans in Kentucky generally fall due every six or twelve months, thus necessitating numerous renewals. Perhaps the credit status of farmers would be somewhat improved, if a longer term on most farm mortgages was arranged.

7. More of the medium-sized farms were mortgaged than of either the large or small farms. The large farms used more cash credit, while the small farms relied more upon merchant credit.

8. Areas differed greatly both in the percent of farmers using short-term credit and in the sources and average size of loans. In Christian, Todd and Bourbon counties about two-thirds of the farmers used short-term credit while the proportion in Knott and Taylor counties was only one-third.

9. Approximately one-half of this group of 406 large farm owner-operators used short-term credit in 1929. Two-fifths of these farms were mortgaged. *One-third of these farmers did not use credit of any kind in 1929.*

10. The average amount of short-term credit used per farm was $1,481. The average amount of bank credit used per farm was $1,802, and of store credit, $332. About one-sixth of the short-term credit was obtained from stores, and the remainder from banks and individuals, chiefly banks.

11. Factors listed by bankers as influencing them in whether or not to extend credit to a farmer included: (1) ability to earn; (2) property owned clear of encumbrances; (3) production possibilities; (4) former promptness in meeting debts; (5) personal character; (6) living habits; and (7) thrift. The failure of bankers to name the purpose for which loans were sought as influencing their decisions as to whether to extend credit is indicative of the financial strength of these farmers, as was also their extensive patronage of such farm mortgage credit agencies as federal land banks, life insurance companies, and joint stock land banks.

12. Commercialization of farming, as evidenced by the greater relative importance of cash crops and the higher share of cash income absorbed by taxes, is apparently more advanced on the mortgaged farms.